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FROM THE PRESIDENT

Dear NaSPA member,

Membership Dues Processing Announcement

Our membership marketing department has been busy planning the implementation of a much requested new service. Over the years, many of you have asked for different membership pricing structures to correspond with the various services we offer. After much research, we are pleased to announce "*Classes of NaSPA Membership*." At initial membership sign-up or renewal time you can choose the level of membership service that works best for you! Please review the following levels of service. When it is time for you to renew you will receive additional information in the mail! For pricing information see page 73.

Subscription Only:

- *Technical Support* magazine only;
no membership benefits included.

Basic/Group

- *Technical Support* magazine;
- the NaSPA Volume 1, Version 3.1 CD-ROM;
- 15 minutes per day on the NaSCOM Internet server; and
- all other member services (discounts, etc.).

Gold

- *Technical Support* magazine;
- the NaSPA Volume 1, Version 3.1 and Volume 2 CD-ROMs;
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- all other member services (discounts, etc.);
- a NaSPA mouse pad; and
- a NaSPA membership certificate.

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- *Technical Support* magazine;
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- unlimited NaSCOM Internet access;
- all other member services (discounts, etc.);
- a NaSPA mouse pad; and
- a NaSPA membership certificate.

Your membership renewal notice will arrive prior to your renewal date. If you have any suggestions for improvements on this program or any of the other NaSPA member benefits, please let our membership department know.

NaSPA's Anniversary

May 7 is officially the first day of our twelfth year as your association. As I was pondering this a few days ago, I thought of the many long-term relationships that have developed over the years — the people without whom this association would not have flourished, and without whose company the time would not have been nearly as enjoyable.

First, I think back to the thousands of members who I have known during this time. Many of whom were chapter members and officers, speakers and educators at NaSTEC conferences, board members, vendors of leading industry companies, as well as *Technical Support* magazine authors, technical editors, and columnists. All of these people have had a major impact on my life and the association. Many of these people have been affiliated with NaSPA since its inception in 1987! Unlike other associations in our industry, our members have signed on for the long haul. Additionally, I can't forget the people who have worked behind the scenes at NaSPA headquarters. Among these important people is the editor of *Technical Support*, Amy Novotny. While I know being in the center ring makes her uncomfortable, she deserves her Andy Warhol 15 minutes of fame!

It seems like just yesterday that I met Amy. She came to work for NaSPA as a college senior, majoring in Communications at the University of Wisconsin. Amy was young, fresh, and full of ideas. And, like most college kids, out to improve the world. Seems like just yesterday.

It's now nine years later, and in March I had the honor of attending Amy's wedding in Orlando, Fla., to her college beau, Jerry. The wedding was held poolside in the lush, green, warm surroundings of her home. Amy, I'm happy for you, and very proud to have been affiliated with you for all these years. You've done nothing short of an extraordinary job on this publication, and I'm sure that all of the members join me in saying "keep up the outstanding work."

Sincerely,

Scott Sherer

FEATURES

- 8 Leveraging Mainframe Applications Over TCP/IP Networks: An Alternative to Point-to-Point Channel Extension**
By Ed Nash



By driving mainframe-based channel extension applications such as high-speed remote print, tape drives, or check processing over TCP/IP routers, IS managers can utilize a single common network to support both channel extension and LAN applications.

- 14 The Paper Wonderland: PC-to-Mainframe Print Distribution**
By Julio A. Hernandez

By adopting an AFP strategy, IS managers can preserve existing investments in mainframe resources and correspondingly meet the day-to-day demands of our paper wonderland.



- 28 PC-to-Mainframe Connectivity Using a 3745 Token Ring Adapter**
By Scott Ruggles

This article examines how an insurance company with multiple locations implemented an SNA gateway token ring attached to a 3745 front-end processor to provide users 3270 access to a wide area network.



SYSTEMS

- 18 Document Imaging and Workflow Management**

By Howard W. Miller

Efficient workflow management begins with effective document imaging document, which is more than just turning paper files into electronic ones; it has the potential to restructure the workflow within an organization by streamlining and automating current work processes.

- 22 Optimizing VSE/ESA on a PC Server System/390**

By Jeffrey C. Barnard

Using the PC Server System/390, which truly integrates enterprise server processing on a PC, sites can optimize the performance of VSE/ESA.



NETWORKING

- 34 ISDN: Innovations Subscribers Do Need: Part II**

By Leo A. Wrobel

Greater competition in the telecommunications arena means a wider variety of new offerings and more affordable services for users.

- 42 Protecting Networks With and Without Firewalls: Part IV — Email Forgery and Other Mail Threats**

By Mark Bell

Preventing email forgery is almost impossible; there is little you can do when the attack is mounted against a remote mail server. A firewall is of little benefit, because it can only protect data residing on hosts that are behind the firewall. The only defense is encryption and authentication.

- 47 NetWare Client 32 for Windows 95**

By John E. Johnston

Novell's Client 32 for Windows 95 is a feature-rich client software package that provides a reliable method to connect Windows 95 workstations to NetWare services.

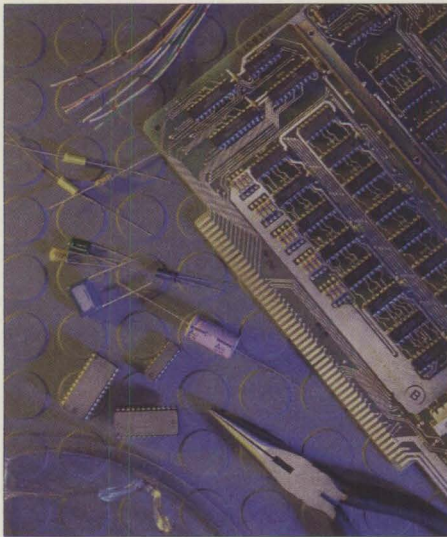


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- | | |
|--|--|
| <p>55 MVS Tools & Tricks
It's a Bird, It's a Plane,
It's SUPRNAME
<i>By Sam Golob</i></p> <p>58 Working Smarter
Cook Me up a Batch
of EDITs: Part I
<i>By Jim Moore</i></p> <p>60 VM Toolbox
XMENUVm:
A CMS Interface
<i>By John D. Kinne</i></p> <p>62 VSE Tools & Techniques
The Talking Tape Drive
<i>By Leo J. Langevin</i></p> <p>64 Storage Strategies
Changing Times:
OpenEdition HFS Files
<i>By Steve Pryor</i></p> | <p>66 Enterprise Networking
Upgrading NetWare Directory
Services Modules
<i>By John E. Johnston</i></p> <p>68 OS/2 Insights
The Domino Effect
<i>By Michael Norton</i></p> <p>74 Opening Windows
Recovering Windows NT Server
and Workstation
<i>By Al Shing</i></p> <p>75 On a Personal Note
The Lost Art of Clemency
<i>By Mike Sutton</i></p> |
|--|--|

D E P A R T M E N T S

- | | |
|---|---|
| <p>3 From the President</p> <p>16 NaSPA CD-ROMs</p> <p>40 NaSPA News</p> <p>52 NaSPA-Fax</p> <p>53 CA-World'97</p> <p>63 NaSPA Services Directory</p> | <p>70 Education Vendors</p> <p>72 NaSCOM Internet Service
and Software</p> <p>73 Reader Services</p> <p>76 Recent Releases</p> <p>77 DEMOS on DEMAND
and HOTLINKS</p> |
|---|---|

The Domino Effect

BY MICHAEL NORTON

What is it, exactly? If it were simply a web server, Domino would not generate much excitement — there are dozens of freeware/shareware and commercial HTTP daemons available. What makes the Domino server so special is its integration with Lotus Notes.

Having introduced you to the basic purpose and functioning of Notes in last month's column, let's examine our original discussion, the emergence of new technologies and this month's featured guest businesses and corporations are so excited about: Domino. As I noted a couple of months ago, there is a reason IBM was willing to shell out more than \$3 billion to acquire Lotus, and it wasn't to compete in the office suites market.

WHAT IS DOMINO?

Like SofTouch System's CrossWins, which I covered a couple of issues ago, Domino is one of those technologies that challenges the descriptive powers of even the best salespeople. What is it, exactly? If it were simply a web server, Domino would not generate much excitement — there are dozens of freeware/shareware and commercial HTTP daemons available. What makes the Domino server so special is its integration with Lotus Notes. Figure 1 illustrates this relationship. On the left side of the figure is Netscape Navigator/2 pointing to my domain, which is using the Domino web server. Note that it is identical in content to my Lotus Notes workspace on the right. Indeed, the two applications are accessing the same data; only the interface has changed.

Figure 2, which illustrates this change, although not drastic, presents the Lotus Notes desktop client and browser views of the same Lotus Notes database; in this case a computer journal containing last month's column. By following the link in the browser, I can display the column, as shown in Figure 3, the same as if I double clicked on the topic in the Lotus Notes desktop client display. The document can also be edited. In Figure 4 I am creating a new column — this column, as a matter of fact,

Figure 1: The Relationship Between Lotus Notes and Domino Server

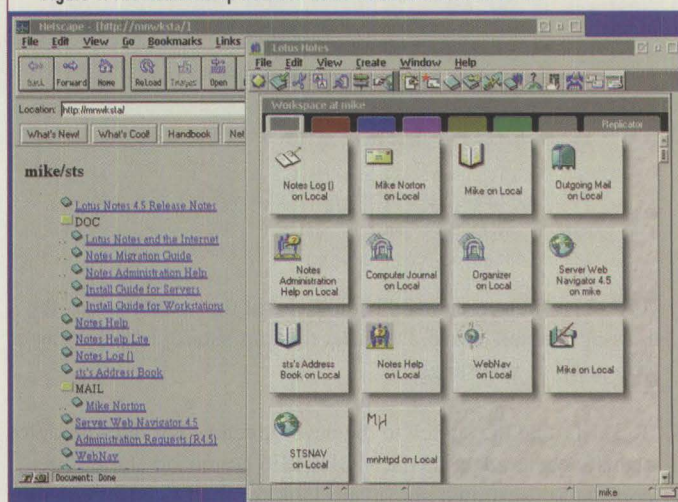
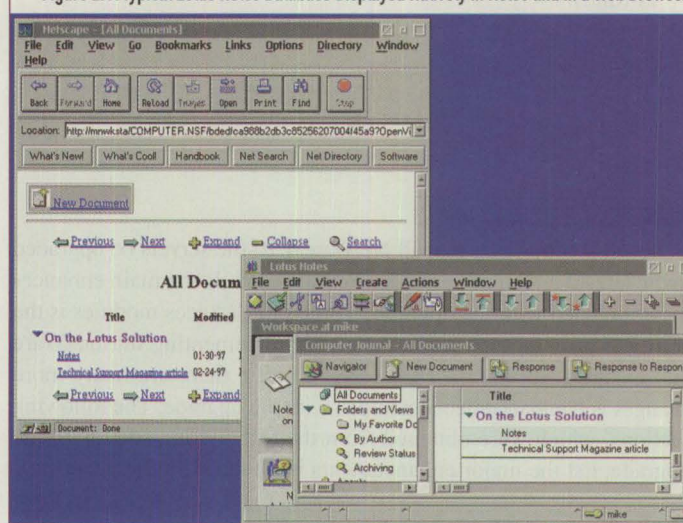


Figure 2: A Typical Lotus Notes Database Displayed Natively in Notes and in a Web Browser



As you can see, Domino uses HTML, e.g., a TEXTAREA, to input information into a document. As illustrated by the document source retrieved from Netscape/2 (Figure 5), the concept is very similar to CGI scripting in that the Domino Web Server dynamically generates HTML documents from Lotus Notes databases (and remember, in Notes everything is a database).

Figure 3: Displaying a Notes Document in a Web Browser

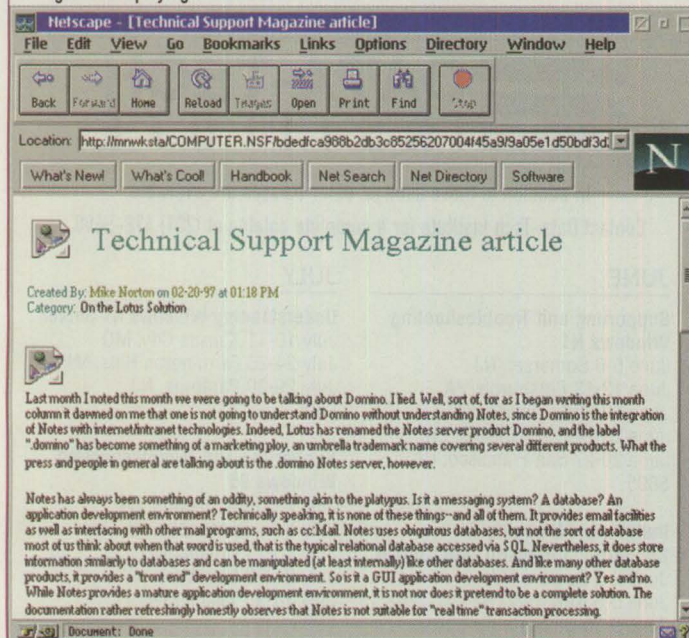
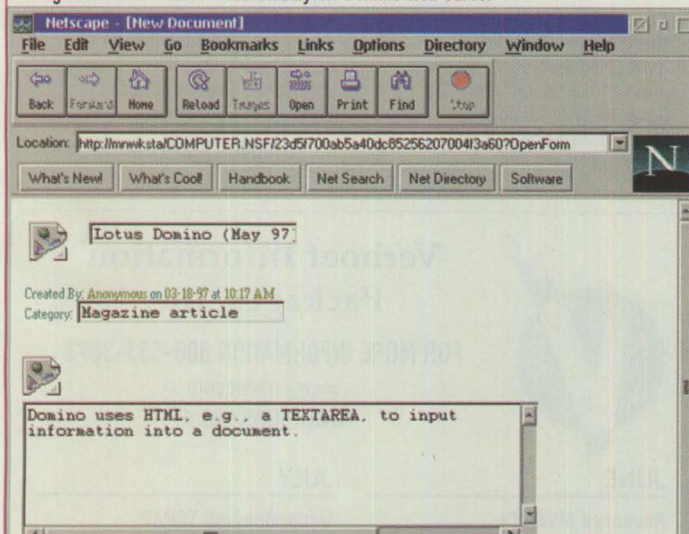


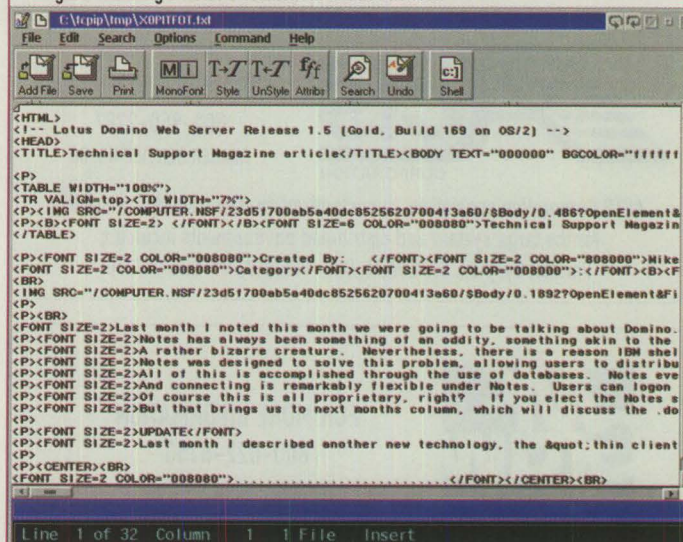
Figure 5: HTML Source Generated by the Domino Web Server



This opens up the full power of a notes server to any user on the network — including the Internet.

If you're worried that IBM/Lotus is going to lose money on Notes clients, don't. For one thing, the pure HTML version of a Notes document is something of, well, a kludge. HTML is inherently incapable of duplicating the controls of a Notes client display. To combat this awkwardness, Notes clients include a specialized browser (Figure 6) for interfacing with Notes as well as the rest of the world. The most truly remarkable result of the entire Domino Notes solution is its integration with the rest of the world, especially via the Internet. The Domino Web Server makes a remarkable proxy server for retrieving, storing, and maintaining World Wide Web documents on an intranet. One benefit of this approach is that future users will be able to access documents on the local network rather than through download over the Internet, resulting, obviously, in much faster access times.

Figure 4: Editing a Notes Document in a Web Browser



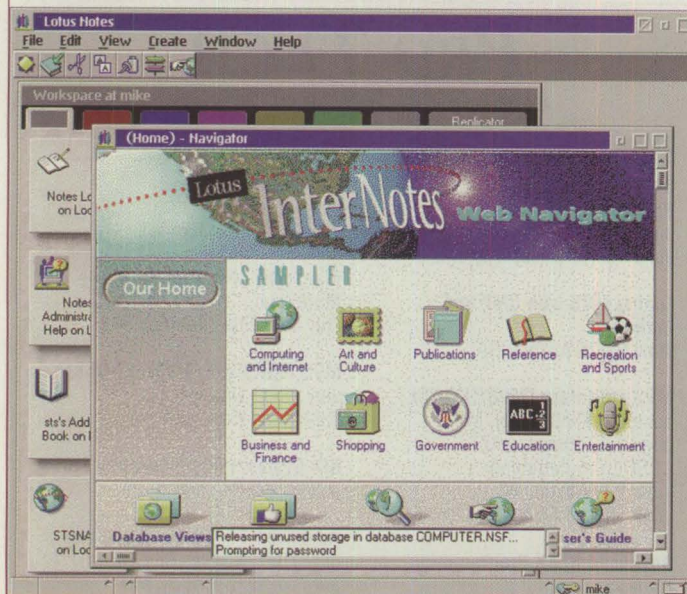
Ultimately what has everyone talking about the Domino Web Server, however, is not its use as a web site design/management tool, but the enhanced security features it offers over competitive solutions.

Although much has been made of Domino as a tool for designing web sites, this functionality is actually a part of the Notes client/server components and is only incidentally related to the Domino Web Server. And even then, those looking for something similar to Microsoft's Front Page are going to be disappointed. As you might have guessed, the web page design is dependent on the design of the Notes database. To create or alter a web page involves altering the underlying database form which is used to generate the web page — not the easiest of tasks, although certainly an available option. While this should discourage those eager to place their personal web page under the "Powered by Domino" logo, the forms approach actually makes a lot of sense in corporate intranet environments where the goal is to process information, not impress the masses with gaudy web page designs. Since all documents are automatically and dynamically displayed using their form's design, no special conversion is necessary to display them in a browser. This approach is much easier to maintain than thousands of HTML documents, each of which is duplicated in some other format (for example, as a text document), and each of which must be altered to reflect any changes in design.

ENHANCED SECURITY

Ultimately what has everyone talking about the Domino Web Server, however, is not its use as a web site design/management tool, but the enhanced security features it offers over competitive

Figure 6: The Lotus Notes Client Web Browser Enhances Emulation of Note Environment on the Web



solutions. The Domino Web Server, of course, supports the SSL (Secure Socket Layer) encryption protocol supported by most secure servers, but it also adds Notes security functionality to the mix. Documents undergo Notes authentication checking before they are released to the web server and, ultimately, the end user. Thus, the site administrator can restrict access to sensitive pages to authorized personnel or specify that a business transaction cannot proceed to the next step (page) until the user's credit card is approved. This is what has everyone talking.

And why did IBM spent \$3 billion acquiring Lotus? The security issue is what has hamstrung Internet commerce. Lotus Domino — the entire integrated solution, including Notes client, Domino Notes server, and the Domino Web Server — is designed to address this issue

and clear the way for business on the 'net. Moreover, the Domino solution opens doors for working together in what Lou Gerstner has called the "networked world." This paradigm shift from isolated information service resources — i.e., a standalone PC, a LAN, or even a mainframe — to shared resources is driving a new wave of products, such as Lotus Domino or SofTouch System's CrossWins, which are pioneering the possibilities of this new, networked world. **ts**

Was this column of value to you? If so, please circle Reader Response Card No. 44.



Michael Norton is the workstation division manager at SofTouch Systems, Oklahoma City, Okla., which provides both mainframe and PC software solutions. He has written mainframe manuals in addition to articles for a number of publications. Michael can be contacted at mnorton@softouch.com.

UPCOMING FOR JUNE

- ◆ Assessing Year 2000 Conversion Project Costs: Part II
- ◆ Why Aren't We Working on the Year 2000?
- ◆ Count Down to the Year 2000 at SunGard Security Systems
- ◆ The Opportunity of a Millennium
- ◆ MVS/ESA Problem Solving: IBM Informational APARs
- ◆ OpenEdition MVS and the Bourne Shell: Part I
- ◆ An Introductory Approach to Network Problem Determination
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